



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/997,304	11/30/2001	Masahiro Tamura	216630US2	4399

22850 7590 02/13/2004

OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C.
1940 DUKE STREET
ALEXANDRIA, VA 22314

EXAMINER

SCHLAK, DANIEL K

ART UNIT	PAPER NUMBER
----------	--------------

3653

DATE MAILED: 02/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/997,304

Applicant(s)

TAMURA ET AL.

Examiner

Daniel K Schlak

Art Unit

3653

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-92 is/are pending in the application.
- 4a) Of the above claim(s) 1-23, 49-55 and 58-89 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 24-48, 56, 57 and 90-92 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 November 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 5.7.10.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Information Disclosure Statement

Information Disclosure Statements papers number 5, 7, and 10, have been considered. However, the foreign references of paper #10, IDS filed 12/26/02, could not be considered because the copies of the references, whether received or not by the Office, are not to be found in the file wrapper. As the copies of the references for all other Information Disclosure Statements were found, the examiner will assume that the copies were misplaced by the Office during transportation of the case within the Office.

Examiner requests that Applicant provide copies of these references, which are shown in PTO 1449 with lines through their corresponding citations. Applicant will not be charged a fee for submission of these copies. For the time being, the examiner has not considered these references, but will do so upon receipt.

Drawings

Figures 77-80 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

Art Unit: 3653

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed. Upon election subsequent to restriction, the subject matter of the elected claims should be mentioned. At least the movable aligning member should be included.

The disclosure is objected to because of the following informalities:

The paragraphs spanning pages 31 through 41 explicitly invoke the claims. As the published patent will likely have none of the originally presented claims in it, in the same form as they were originally presented, Applicant is required to remove all instances of this which create a dependency of the specification on the claims which have been withdrawn due to the election, and to be careful in following through during prosecution in amending the specification each time an elected claim is amended in a way that leaves the invocation of such in the specification no longer pertinent. It is not wished by any party that the specification of the published patent describes the invention in such a way that makes a reader require the before-amended claims of the application to understand it.

Appropriate correction is required.

Election/Restrictions

Claims 1-23, 49-55, and 58-89 have been withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected Groups I, III, IV, V, and

Art Unit: 3653

VI, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in Paper No. 24.

Applicant alleges that the distinct inventions appear to be part of an overlapping search and that examination of all would not “place a *serious* burden on the Examiner” (emphasis added by applicant). This statement is merely an opinion and forms no basis for a traversal, as the Applicant can have no idea what extra burden is or would be imposed upon the Examiner by further searching the additional five groups. The Examiner humbly asserts that a search on all of the Groups would require the time he usually spends searching four or five applications. This, it would seem to even the most objective viewpoint, is a serious burden. Applicant is reminded that the examiner took the time to delineate the reasons for restriction, and a substantial traversal to the restriction requirement would be on the basis of lack of criteria for distinctness in the inventions. As nothing of such kind has been put forth, and as the examiner is quite sure of the impending burden associated with agreeing to search five additional groups, the restriction requirement has been maintained.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 26, 29, 30, 34, 41, 43, 45, and 46 (and therefore, by dependency, claims 27, 31-38, and 42-48) are rejected under 35 U.S.C. 112, second paragraph, as being

Art Unit: 3653

indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 26 recites, in lines 3-4, "one of the different positions in the direction of ejection, without interference with the loaded sheet-like medium..." Interference from what? What is being interfered with? The position?

Claim 26, in lines 5-7, recites "and the another one of the different positions is the second stop position.... and contactable with a upper surface..."

To begin with, the word "a" should be changed to "an" to agree with the word "upper". Primarily, the recitation fails to be definite as the word "contactable" has no basis and no object. What is contacting what? Again, is it the "position" which is contacting? Positions cannot contact anything.

Claim 29 recites, in lines 3-4, "a first member extending longitudinally..." Longitudinally of what? Anything that extends will do so longitudinally to itself. Thus, where is the basis for the term "longitudinal" to begin with?

In line 4, claim 29 recites "its intermediate is position pivoted on..." which makes no sense at all. The examiner believes one word was inadvertently incorrectly inserted before another word which should have preceded it. Also, what intermediate position? None has been mentioned. How is a "position" pivoted on anything?

In line 4, claim 29 further recites "pivoted on an immovable member..." Any member is movable. Whether by someone picking up the entire alignment apparatus and moving it from one plant surface or another, or just by rotation of the earth, the member is movable. The examiner suggests the term "fixed".

Art Unit: 3653

Lines 7-8 of claim 29 also recite “extending longitudinally” without any basis for the term “longitudinal”. Applicant is directed to the identical rejection for line 4 of the claim.

Line 8 of claim 29 recites “its intermediate position is pivoted...” Again, the examiner asserts that a position cannot be pivoted. Only structural elements can be pivoted.

Line 8 of claim 29 goes on to recite “pivoted on one free end side...” The question must be asked, “side of what?” The “end” of what?

Claim 29, in line 12, recites that the returning means is pivoted on a “desired free end”. Desired? Who desires it? Applicant is reminded that 35 U.S.C. 112 inherently demands that claims be constant in time, and certainly that they are not left to the whim of an operator for the existence or non-existence of an end, a center, etc.

Line 12 of claim 29 also recites “off a rotational center...” What does this mean? Does it pivot so far that it falls off?

Claim 30, in line 3, recites “installed on a free end side...” but again there is no basis for “side”. The side of what?

In claim 34, line 3, is recited “device installed to act on the free end...” The free end of what?

Claim 41 recites in line 4 that a “second stop position which may interfere with the sheet-like medium” is attributed to the loading means. Again, the examiner asserts that a position cannot interfere with anything anyway. Further, the word “may” basically defines indefiniteness, and therefore should be left out of claims altogether. A sheet-

like medium "may" contact just about anything in just about any device if someone takes the device apart and/or starts jamming paper up in it all over the place.

Claim 41 recites the limitation "the vertical wall" in line 9. There is insufficient antecedent basis for this limitation in the claim.

Claim 43 recites, in line 4, that the second position is "slower than a returning speed of the sheet-like medium *by the returning means*" and the examiner must draw attention to the lack of any substantive basis for the word "by". What is its connotation here? Does it mean "nearby" or "thereby" or "via", and if one of these, well it still doesn't seem to have any relation to the medium or the means.

Claim 45 recites the limitation "the alignment operation" in line 3. There is insufficient antecedent basis for this limitation in the claim.

Claim 46 recites the limitation "the drive speed" in line 3 and again in line 4. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 24-31, 34, 39, 40-45, 56, 57, 90, 91, and 92 are rejected under 35 U.S.C. 102(b) as being anticipated by US 4,474,366 to Reider.

Reider teaches a sheet-like medium alignment apparatus comprising a means for aligning and loading a sheet-like medium ejected on a loading means with an ejecting means by pressing an end of said sheet-like medium on an upstream side in a direction of ejection against an end fence; a returning means for moving the sheet-like medium ejected onto said loading means; wherein said returning means can be located at different positions in the direction of ejection. The distance between one of said different positions and the another position is greater than the amount of variation in the position of the trailing edge of the sheet-like medium when falling on the loading means. One of said positions is the first stop position (50) upstream from the other position in the direction of ejection (108), in such a way that the return means offers no interference to the loaded sheet-like medium ejected from the ejecting means, and the other position is the second stop position downstream from the first stop position in the direction of ejection (108), obtained by contact with the upper surface of the sheet-like medium on the loading means (33 and 36). A third stop position is provided between the first stop position and the second stop position. A displacement means capable of reciprocating at least in said direction of ejection is also provided. The displacement means comprises; a first member (90), with its intermediate position pivoted on a fixed member, wherein said first member is installed so as to allow rocking about the first pivot portion (88) within a specified angle, and a second member (52), with its intermediate position is pivoted on (24), wherein said second member is installed to allow rocking about the second pivot portion (24) within a specified angle; wherein a returning means (56, 58, 60) is pivoted on a free end on the second pivot portion of the

Art Unit: 3653

second member, and the returning means is shifted to a different position in the direction of ejection by a combination between rocking of the first member and rocking of the second member. The first member is rocked about the first pivot portion by the first rocking means installed on the free end side opposite to where the second member is installed. The first rocking means comprises an eccentric cam rotating in contact with the free end side of the first member and a first rocking means for contacting the eccentric cam to the free end side. The second member is rocked by the second rocking means installed to act on the free end side opposite to where said returning member is installed with the second pivot portion located in-between on the second member. A controlling means is provided to ensure that retaining operation by the returning means is performed after the sheet-like medium has been ejected onto the loading means. The returning means is movable between the first stop position which does not interfere with the sheet-like medium loaded on the loading means and the second stop position which may interfere with the sheet-like medium loaded on the loading means, and a controlling means is provided to ensure that, subsequent to the movement of the returning means to the second position, movement is stopped for the specified time when the sheet-like medium returned by the returning means is pressed against the vertical wall; then the returning means is moved to the first position. The controlling means is provided to ensure that the time when the returning means is stopped at the second position is variable according to any one of the quality, size and number of the sheet-like media ejected onto the loading means, or a combination thereof. The controlling means is provided to ensure that the speed at which the

Art Unit: 3653

returning means moves from the first position to the second position is slower than the returning speed of the sheet-like medium by the returning means. The controlling means is provided to ensure that the returning means is moved to the first position when a jam (as it is moved to the second position by sensing incoming sheets, the lack of sheets will keep the means in the first position) has occurred in a sheet transport path upstream from the ejecting means. The controlling means is provided to ensure that the returning means is disabled in the alignment operation immediately after a failure of the returning means has been detected.

Reider teaches an image forming device, a post-treatment means, and a transporting means

Claims 24, 25, 56, 57, 90, 91, and 92 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by JP 63-147771.

Claims 24-28, 41, 46, 57, 90, and 92 are rejected under 35 U.S.C. 102(b) as being anticipated by US 4,444,388 to Steffanson et al.

Steffanson teaches a sheet-like medium alignment apparatus comprising a means for aligning and loading a sheet-like medium ejected on a loading means with an ejecting means by pressing an end of said sheet-like medium on an upstream side in a direction of ejection against an end fence (61); a returning means (49) for moving the sheet-like medium ejected onto said loading means; wherein said returning means can be located at different positions in the direction of ejection. The distance between

Art Unit: 3653

one of said different positions and the another position is greater than the amount of variation in the position of the trailing edge of the sheet-like medium when falling on the loading means. The distance between one of said different positions and the other position is greater than the amount of variation in the position of the trailing edge of the sheet-like medium when falling on the loading means. One of said positions is the first stop position upstream from the other position in the direction of ejection, without interference given to the loaded sheet-like medium ejected from the ejecting means, and the other position is the second stop position downstream from the first stop position in the direction of ejection, obtained by contact with the upper surface of the sheet-like medium on the loading means. A third stop position is provided between the first stop position and the second stop position. Returning means is provided, and a displacement means capable of reciprocating at least in said direction of ejection is also provided.

A controlling device ensures that subsequent to the movement of the returning means to the second position, movement is stopped for a predetermined time when the sheet is pressed against the end fence, and then the returning means is moved to the first position. The returning means comprises a return roller.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

Art Unit: 3653

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 32 is rejected under 35 U.S.C. 103(a) as being unpatentable over Reider.

Reider teaches a motor but not a stepping motor with an encoder. As the ability of Reider to always achieve an exact degree of rotation/pivot of the cam with each triggering and to stop in an exact location is paramount in such a device as is taught by Reider, it would follow that the stepping motor with encoder is simply an alternative to the arrangement of Reider whereby drive from a separate system is incrementally applied to the cam. Any of ordinary skill in the art would realize that a stepper motor offers more precise control and would be aware of the opportunities of applying such to any incrementally active assembly.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel K Schlak whose telephone number is 703-305-0885. The examiner can normally be reached on Mon-Thurs.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Donald Walsh can be reached on 703-306 - 4173. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 3653

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

dk


DONALD F. WALSH
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600